CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Sun Mountain Lumber - Brad Anderson Farms SMZ_AP
Proposed Implementation Date:	Upon Signature
Proponent:	Sun Mountain Lumber
Location:	T4N R9W Sec 04 (see map)
County:	Silver Bow

I. TYPE AND PURPOSE OF ACTION

Dave Krueger with Sun Mountain Lumber is requesting a Streamside Management Zone (SMZ) Alternative Practice for harvest near an un-named tributary to Whitcraft Gulch (see attached map).

According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities and prohibitions within the SMZ, penalties and other related provisions.

According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ. Treatments would be limited to operation of a feller-buncher inside the 50 foot SMZ, but no closer than 20 feet to the ordinary high water mark (OHWM). It would also include skidding inside the 50 foot SMZ buffer but no closer than 25 feet to the OHWM on two short segments (see map). These treatments would be conducted on slopes less than 15%. Additional stipulations of this request would include:

- Operation of the feller-buncher inside the SMZ would be in a straight-in and straight-out manner (as practical) to minimize disturbance inside the 50 foot boundary.

- Skidding would be allowed inside the SMZ but no closer than 25 feet from the OHWM on two segments of the channel (see attached map). Skid distance inside the SMZ would be no more than 100 yards on either segment.

- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches, snow to a depth of eight inches, or periods when ground moisture is less than 20%.

- If operations take place during periods of dry ground conditions, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching water.

- Felled trees would be placed outside of the 50 foot SMZ boundary for skidding.

This AP would be issued under this EA Checklist for a period of two years.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
Provide a brief chronology of the scoping and ongoing involvement for this project.

MT DNRC and Sun Mountain Lumber.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

N/A

3. ALTERNATIVES CONSIDERED:

Alternative A –No Action.

This alternative would not operate machinery inside the fifty foot buffer. Excavated skid trails may be incorporated outside of the 50 foot buffer. Trees may be hand-felled to minimum retention standards or left standing.

Alternative B – Action.

SMZ Alternative Practice would be issued for the Brad Anderson Farms Project (see attached map). Please see *Type and Purpose of Action* for a full description of this alternative.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Alternative A - No Action

No equipment operation would be allowed inside the 50 foot SMZ. Minimum retention standards would be recognized. Trees may be hand-felled and skidded by cable through the SMZ. Excavated skid trails may be incorporated to facilitate skidding harvested trees. Felling and skidding may occur on various types of soils and on various degrees of slopes. Cable skidding each tree out of the SMZ would likely create more soil disturbance than a feller-buncher carrying multiple trees out of the SMZ for skidding.

Alternative B – Action

Soils are described as "moderately or poorly suited" for timber harvest in the Web Soil Survey (see attached). Equipment operation would be limited to areas where slope is less than 15%. Mitigation measures would include operating season restrictions that require frozen ground to a depth of four inches, snow depth of eight inches or ground moisture of 20% or less. In addition, grass-seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of activity would be required. Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the soil rating restrictions, operation restrictions and mitigation measures.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Alternative A - No Action

No equipment operation would be allowed inside the 50 foot SMZ. Minimum retention standards would be recognized. Trees may be hand-felled and skidded by cable through the SMZ or left standing. Hand-felling operations may introduce low levels of sediment delivery to adjacent waterbodies. Sedimentation delivery from existing roads, other land treatments and developments would continue. Minimal direct, indirect, and cumulative impacts to water quality and quantity would be expected.

Alternative B – Action

The harvest of trees within the first 30 feet of the SMZ may introduce low levels of sediment delivery to adjacent waterbodies. However, the 20 foot equipment exclusion zone would be expected to provide adequate filtration for any displaced soils or increased runoff due to compacted soils in the 20 to 50 foot AP zone. Increases in sedimentation would be expected to be minimal and temporary due to operations only occurring on slopes less than 15% and application of mitigation measures. Mitigation measures include imposing seasonal operating restrictions that require frozen ground to a depth of four inches, snow depth of eight inches or ground moisture of 20% or less; and requiring grass seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of operations. DNRC may monitor AP site to verify effectiveness. Minimal direct, indirect, and cumulative impacts to water quality and quantity are expected due to operation restrictions and mitigation measures.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

N/A

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Alternative A - No Action

Trees may be hand-felled to minimum retention standards. Hand-felling and skidding hand-felled trees have the potential to be more damaging to the residual stand than the directional felling of a feller buncher. This is due to trees being pulled through the residual stand with less maneuverability, potentially removing bark and pulling over the residual stand.

Alternative B – Action

A query of the Montana Natural Heritage Program shows no plant Species of Concern for T4N, R9W. Vegetative communities would be affected to the extent that Douglas-fir would be reduced to minimum retention standards as outlined in Rule 5 of the Montana Guide to the Streamside Management Zone Law and Rules handbook. Understory vegetation would be protected to the greatest extent possible.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Alternative A – No Action

Minimum retention standards would be adhered to as well as equipment restrictions. Harvest would follow SMZ Law and trees may be hand felled and cable skidded through the 50 foot buffer. An excavated skid trail may be constructed outside of 50 foot buffer to accommodate skidding to the landing.

Alternative B – Action

The project area provides habitat for a variety of wildlife species. Deer and moose likely use the project area much of the non-winter periods; elk winter range does not exist in the limited AP area; no elk security habitats exist in the limited AP area. Under the action alternative, Douglas-fir would be removed to minimum retention standards leading to more open areas in portions of the project area. This would alter habitats for wildlife species requiring mature forested conditions, while creating habitats for species needing more open stands. A low risk of adverse direct, indirect, or cumulative effects to species requiring mature forested stands, big game, or snags would be anticipated with the proposed activities.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Alternative A – No Action
A query of the Montana Natural Heritage Program identifies the area as being possible habitat for wolvering, hoary bat, little brown myotis, Preble's shrew, golden eagle, great blue heron, Brewer's sparrow, great gray owl, western toad and westslope cutthroat trout. (see attached). Under Alternative A, equipment restrictions would be adhered to as outlined in the SMZ Law.
Minimum retention standards would be adhered to as well as equipment restrictions. Direct, indirect and cumulative effects would not be influenced by the AP.

Alternative B - Action
Proposed actions may cause slight shifts in use by listed species of concern, however, no key habitat components are known to exist in the proposed AP project area and is not expected to appreciably change. If a sighting of any of the listed species of concern (or evidence such as nests, dens etc...) occurs, operations would be halted until, or not allowed, until further assessment could take place. Due to operating restrictions and mitigation measures outlined under Type and Purpose of Action, a low risk of direct, indirect and cumulative effects to listed species of concern would be expected with the action alternative.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

Although no cultural or paleontologic resources are known to exist in the project APE, a systematic inventory of such resources has not occurred. Because none of the projects are located on state land, the DNRC has no jurisdiction to require private landholders to conduct professional level inventories to identify, or develop treatment plans for, privately owned National Register eligible properties.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Alternative A – No Action
Minimum retention standards would be adhered to as well as equipment restrictions. Aesthetics would not appreciably change.

Alternative B - Action
Potential impacts may be perceived as adverse by recreationists, landowners and travelers. Cumulative effects would be minimal and generally only noticed by the landowner.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

N/A

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

There have been multiple SMZ AP's issued in the last two years in this area. All of them have required similar operating restrictions and mitigation measures and have proved beneficial with minimal impacts.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

N/A

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

N/A

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Project would be allowed for a period of two years. Harvest of trees in the AP area may generate 10 mbf and would employ one logging crew over the entire AP area. In addition this project would provide raw material for local mill operations.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Negligible amounts.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

N/A

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

This Alternative Practice would allow timber harvest in an area considered at high risk for wildfire under the Silver Bow County Community Wildfire Protection Plans.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

N/A

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

N/A

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

N/A

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

N/A

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

N/A

EA Checklist Prepared By:	**Name:**	Sean Steinebach	**Date:**	12/22/16
	Title:	Service Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B - Action

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

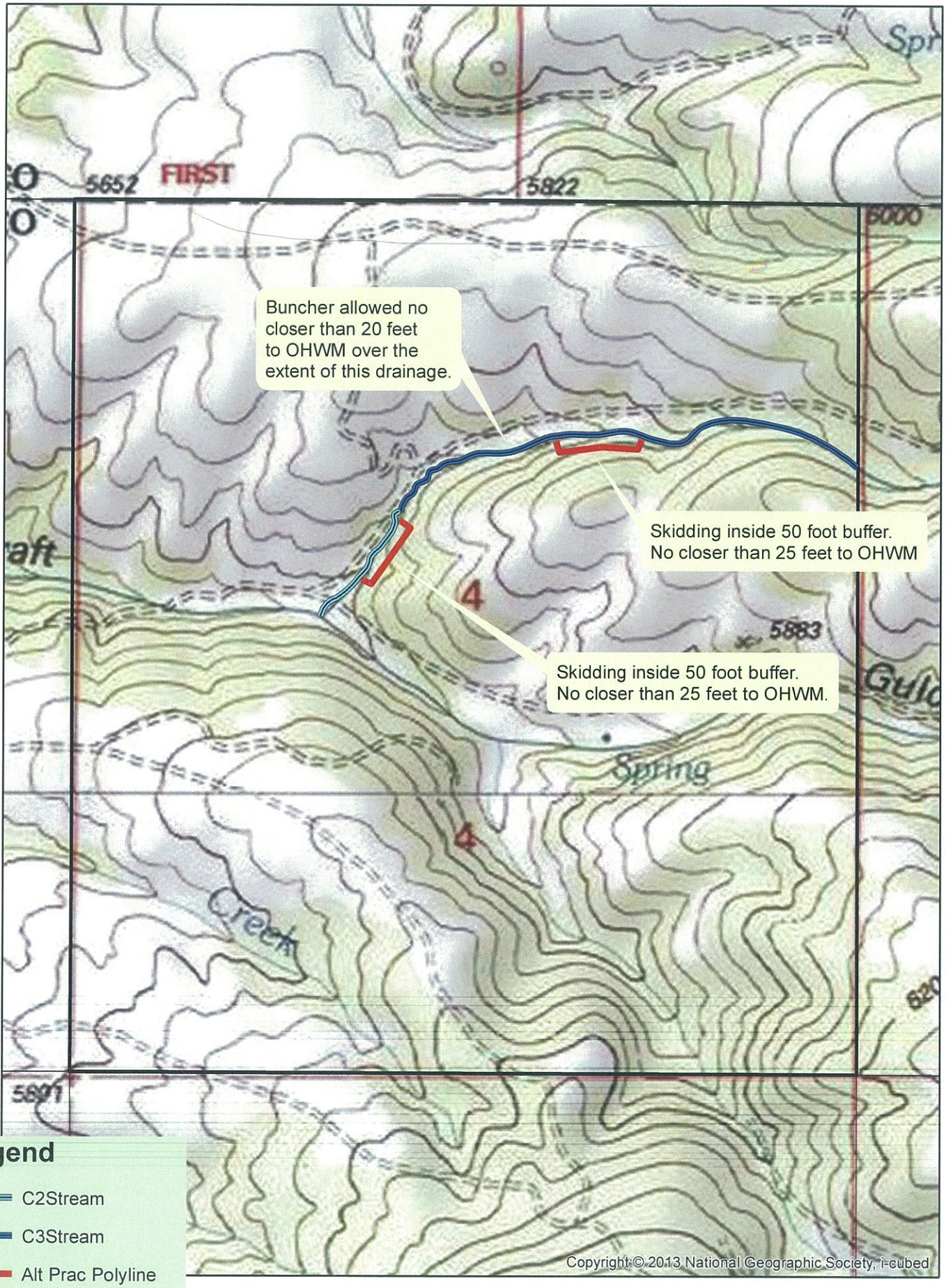
No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:**	Brian Robbins		
	Title:	Anaconda Unit Manager		
Signature:	Brian S Robbins		**Date:**	12/22/2016

SML_Brad Anderson Farms SMZ AP T4N, R9W, Sec. 04



Montana Natural Heritage - SOC Report

Animal Species of Concern

Species List Last Updated **05/03/2016**

10 Species of Concern

Filtered by the following criteria:

Township = 004N009W (based on mapped Species Occurrences)

MONTANA Natural Heritage Program

A program of the Montana State Library's Natural Resource Information System operated by the University of Montana.

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Introduction

Species of Concern

Species of Concern

10 Species

Filtered by the following criteria:

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MAMMALS (MAMMALIA)

4 SPECIES

TOWNSHIP = 004N009W (based on mapped Species Occurrences)

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Gulo gulo Wolverine	Mustelidae Weasels	G4	S3	P	SENSITIVE	SENSITIVE	SGCN3	0%	37%	Boreal Forest and Alpine Habitats
	Species Occurrences verified in these Counties: Beaverhead, Broadwater, Carbon, Cascade, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland									
Lasiurus cinereus Hoary Bat	Vespertilionidae Bats	G3G4	S3				SGCN3	2%	100%	Riparian and forest
	Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone									
Myotis lucifugus Little Brown Myotis	Vespertilionidae Bats	G3	S3				SGCN3	3%	100%	Generalist
	Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Mccone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone									
Sorex preblei Preble's Shrew	Soricidae Shrews	G4	S3				SGCN3	28%	79%	Sagebrush grassland
	Species Occurrences verified in these Counties: Beaverhead, Big Horn, Chouteau, Dawson, Deer Lodge, Fergus, Gallatin, Golden Valley, Granite, Judith Basin, Lincoln, Madison, Missoula, Phillips, Powell, Ravalli, Sheridan, Silver Bow, Sweet Grass, Teton, Valley, Wheatland									

BIRDS (AVES)

4 SPECIES

TOWNSHIP = 004N009W (based on mapped Species Occurrences)

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Aquila chrysaetos Golden Eagle	Accipitridae Hawks / Kites / Eagles	G5	S3	BGEPA; MBTA; BCC		SENSITIVE	SGCN3	3%	100%	Grasslands
	Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Yellowstone									
Ardea herodias Great Blue Heron	Ardeidae Bitterns / Egrets / Herons / Night-Herons	G5	S3				SGCN3	3%	100%	Riparian forest
	Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Harding, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, McKenzie, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Treasure, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Small breeding population size, evidence of recent declines, and declining regeneration of riparian cottonwood forests due to altered hydrology and grazing.									
Spizella breweri Brewer's Sparrow	Emberizidae Sparrows	G5	S3B			SENSITIVE	SGCN3	12%	100%	Sagebrush
	Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Butte, Carbon, Carter, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Lake, Lewis and Clark, Liberty, Lincoln, Madison, Mccone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Species faces threats from loss of sagebrush habitats it is dependent on as a result of habitat conversion for agriculture and increased frequency of fire as a result of weed encroachment and drought.									
Strix nebulosa Great Gray Owl	Strigidae Owls	G5	S3			SENSITIVE	SGCN3, SGIN	2%	46%	Conifer forest near open meadows
	Species Occurrences verified in these Counties: Beaverhead, Carbon, Deer Lodge, Flathead, Gallatin, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Meagher, Missoula, Park, Powell, Ravalli, Silver Bow, Sweet Grass, Teton, Wheatland									

AMPHIBIANS (AMPHIBIA)

1 SPECIES

TOWNSHIP = 004N009W (based on mapped Species Occurrences)

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Anaxyrus boreas Western Toad	Bufonidae True Toads	G4	S2		SENSITIVE	SENSITIVE	SGCN2	6%	38%	Wetlands, floodplain pools
	Species Occurrences verified in these Counties: Beaverhead, Chouteau, Deer Lodge, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Teton									

FISH (ACTINOPTERYGII)

1 SPECIES

TOWNSHIP = 004N009W (based on mapped Species Occurrences)

SCIENTIFIC NAME / COMMON NAME / TAXA SORT	FAMILY (SCIENTIFIC) / FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE	HABITAT
Oncorhynchus clarkii lewisi Westslope Cutthroat Trout	Salmonidae Trout	G4T3	S2		SENSITIVE	SENSITIVE	SGCN2		34%	Mountain streams, rivers, lakes
	Species Occurrences verified in these Counties: Beaverhead, Broadwater, Cascade, Chouteau, Deer Lodge, Fergus, Flathead, Gallatin, Glacier, Granite, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Ravalli, Sanders, Silver Bow, Teton, Wheatland									

Potential Species of Concern

Special Status Species

Additions To Statewide List

Species Removed From Statewide List

Species of Greatest Inventory Need

Citation for data on this website:
Montana Animal Species of Concern Report. Montana Natural Heritage Program and Montana Fish, Wildlife and Parks. Retrieved on 12/20/2016 from http://mtnhp.org/SpeciesOfConcern/?AorP=a

Montana Natural Heritage - SOC Repo

Plant Species of Concern

Species List Last Updated
05/03/2016

Filtered by the following criteria:
Township = 004N009W (based on mapped Species Occurrences)

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Introduction

Species of Concern

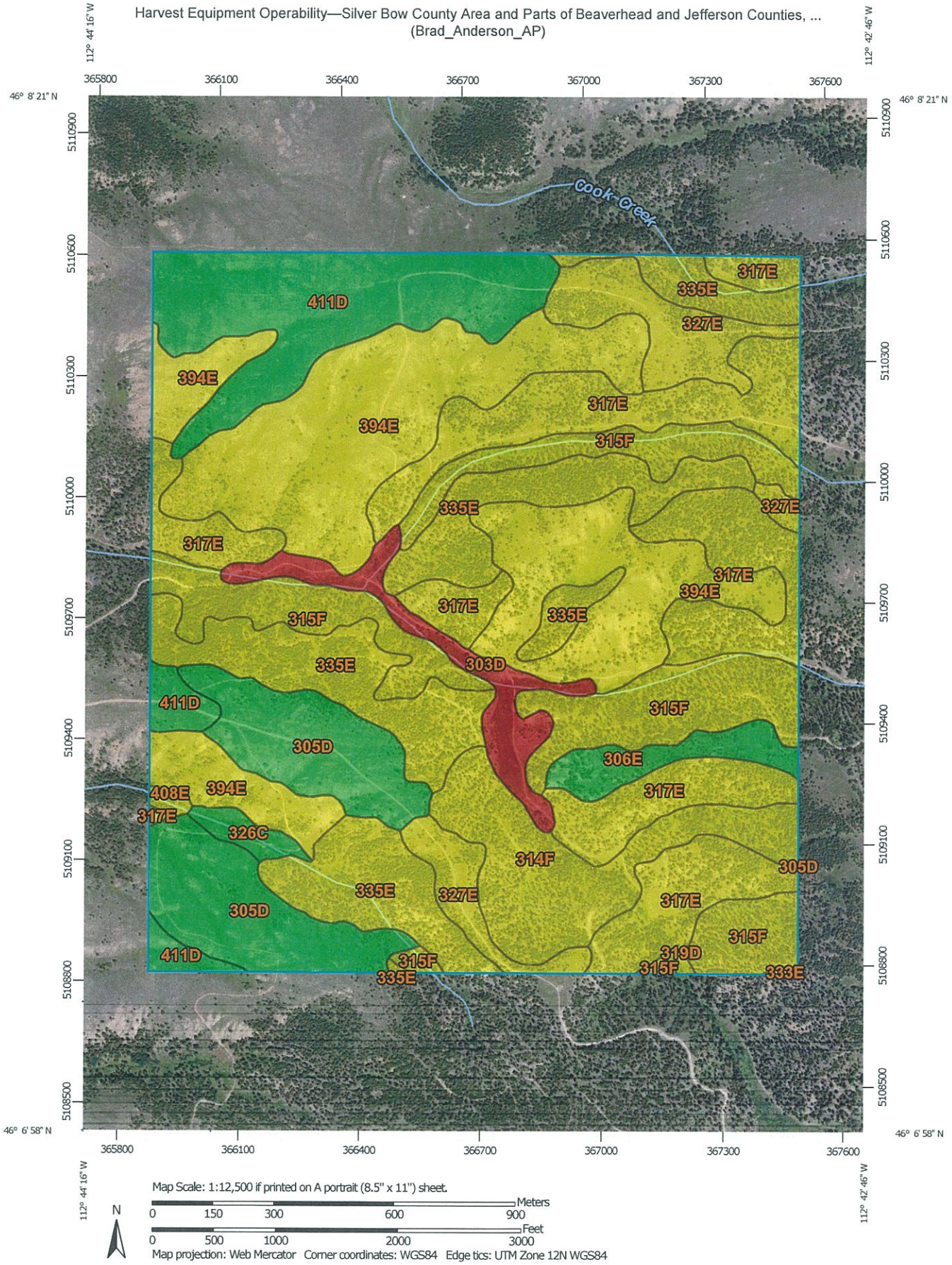
Potential Species of Concern

Special Status Species

Additions To Statewide List

Species Removed From Statewide List

Citation for data on this website:
Montana Plant Species of Concern Report. Montana Natural Heritage Program. Retrieved on 12/20/2016, from http://mtnhp.org/SpeciesOfConcern/?AorP=p



Map Scale: 1:12,500 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 150 300 600 900

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Poorly suited
- Moderately suited
- Well suited
- Not rated or not available

Soil Rating Lines
- Poorly suited
- Moderately suited
- Well suited
- Not rated or not available

Soil Rating Points
- Poorly suited
- Moderately suited
- Well suited
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Silver Bow County Area and Parts of Beaverhead and Jefferson Counties, Montana
Survey Area Data: Version 17, Sep 3, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 9, 2011—Jul 17, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Harvest Equipment Operability

Harvest Equipment Operability— Summary by Map Unit — Silver Bow County Area and Parts of Beaverhead and Jefferson Counties, Montana (MT670)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
303D	Moosejaw, occasionally flooded-Highrye-Silas, occasionally flooded complex, 2 to 12 percent slopes	Poorly suited	Moosejaw (35%)	Wetness (1.00)	20.7	2.9%
				Low strength (0.50)		
				Dusty (0.00)		
305D	Beeftrail-Branham-Minestope complex, 2 to 15 percent slopes	Well suited	Beeftrail (30%)		62.5	8.8%
			Branham (25%)	Dusty (0.00)		
			Minestope (25%)			
			Minestope, gravelly coarse sandy loam (10%)			
			Highrye (8%)	Dusty (0.00)		
306E	Wissikihon-Branham-Highrye complex, 8 to 30 percent slopes	Well suited	Wissikihon (45%)		12.9	1.8%
			Highrye (20%)	Dusty (0.00)		
			Oro Fino (11%)	Dusty (0.00)		
			Zonite (3%)			
314F	Basincreek-Comad complex, 20 to 50 percent slopes	Moderately suited	Basincreek (60%)	Slope (0.50)	42.6	6.0%
			Comad (30%)	Slope (0.50)		
				Sandiness (0.50)		
			Zonite (5%)	Slope (0.50)		
				Sandiness (0.50)		
315F	Stecum-Hiore complex, 20 to 50 percent slopes	Moderately suited	Stecum (50%)	Slope (0.50)	84.7	11.9%
			Hiore (30%)	Slope (0.50)		
			Zonite (6%)	Slope (0.50)		
				Sandiness (0.50)		
			Stecum, very stony coarse sandy loam (4%)	Slope (0.50)		
317E	Stecum-Caseypeak-Rock outcrop complex, 8 to	Moderately suited	Stecum (45%)	Slope (0.50)	124.3	17.5%
			Caseypeak (20%)	Slope (0.50)		

Harvest Equipment Operability— Summary by Map Unit — Silver Bow County Area and Parts of Beaverhead and Jefferson Counties, Montana (MT670)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
	35 percent slopes		Basincreek (5%)	Slope (0.50)		
319D	Silas, stony-Branham, stony-Tepete complex, 2 to 15 percent slopes	Moderately suited	Branham, stony (25%)	Low strength (0.50)	0.7	0.1%
			Comad (10%)	Slope (0.50)		
			Hiore (10%)	Slope (0.50)		
326C	Fleecer-Branham-Passmore complex, 2 to 8 percent slopes	Well suited	Fleecer (40%)	Dusty (0.00)	4.7	0.7%
			Branham (30%)	Dusty (0.00)		
			Minestope (5%)			
327E	Highrye-Stecum-Wissikihon complex, 15 to 30 percent slopes	Moderately suited	Highrye (35%)	Slope (0.50)	34.4	4.8%
			Stecum (30%)	Slope (0.50)		
			Wissikihon (20%)	Sandiness (0.50)		
				Slope (0.50)		
			Zonite (3%)	Sandiness (0.50)		
333E	Stecum-Hiore-Rock outcrop complex, 15 to 35 percent slopes	Moderately suited	Stecum (30%)	Slope (0.50)	0.3	0.0%
			Hiore (20%)	Slope (0.50)		
			Goldflint (10%)	Sandiness (0.50)		
				Slope (0.50)		
			Bobowic (10%)	Slope (0.50)		
			Basincreek (5%)	Slope (0.50)		
			Stecum, very stony (5%)	Slope (0.50)		
				Sandiness (0.50)		
			Branham (5%)	Slope (0.50)		
				Dusty (0.00)		
335E	Stecum-Goldflint-Branham complex, 12 to 35 percent slopes	Moderately suited	Stecum (45%)	Slope (0.50)	101.8	14.3%
			Goldflint (20%)	Sandiness (0.50)		
				Slope (0.50)		
			Branham (15%)	Slope (0.50)		
				Dusty (0.00)		
			Peeler, sandy substratum (12%)	Slope (0.50)		
394E	Minestope, very stony-Beeftrail, very stony-Rock outcrop complex, 8 to 30 percent slopes	Moderately suited	Minestope, very stony (40%)	Slope (0.50)	151.9	21.3%
			Beeftrail, very stony (30%)	Slope (0.50)		
			Zonite, extremely stony (5%)	Slope (0.50)		

Harvest Equipment Operability— Summary by Map Unit — Silver Bow County Area and Parts of Beaverhead and Jefferson Counties, Montana (MT670)						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
				Rock fragments (0.50)		
				Sandiness (0.50)		
408E	Stecum-Mooseflat-Basincreek complex, 4 to 30 percent slopes, very bouldery	Moderately suited	Stecum, very bouldery (40%)	Rock fragments (0.50)	1.3	0.2%
				Slope (0.50)		
			Basincreek, very bouldery (20%)	Rock fragments (0.50)		
411D	Modess-Nuley complex, 4 to 12 percent slopes	Well suited	Modess (60%)	Dusty (0.02)	68.7	9.7%
			Varney, sandy substratum (5%)	Dusty (0.04)		
			Branham (5%)	Dusty (0.01)		
			Tuggle, moist (2%)			
Totals for Area of Interest					**711.6**	**100.0%**

Harvest Equipment Operability— Summary by Rating Value		
Rating	Acres in AOI	Percent of AOI
Moderately suited	542.0	76.2%
Well suited	148.8	20.9%
Poorly suited	20.7	2.9%
Totals for Area of Interest	**711.6**	**100.0%**

Description

Ratings for this interpretation indicate the suitability for use of forestland harvesting equipment. The ratings are based on slope, rock fragments on the surface, plasticity index, content of sand, the Unified classification of the soil, depth to a water table, and ponding. Standard rubber-tire skidders and bulldozers are assumed to be used for ground-based harvesting and transport.

The ratings are both verbal and numerical. Rating class terms indicate the degree to which the soils are suited to this aspect of forestland management. "Well suited" indicates that the soil has features that are favorable for the specified management aspect and has no limitations. Good performance can be expected, and little or no maintenance is needed. "Moderately suited" indicates that the soil has features that are moderately favorable for the specified management aspect. One or more soil properties are less than desirable, and fair performance can be expected. Some maintenance is needed. "Poorly suited" indicates that the soil has one or more properties that are unfavorable for the specified management aspect. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

Tie-break Rule: Higher

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION

STEVE BULLOCK , GOVERNOR

STATE OF MONTANA

Telephone: (406) 563-6078
FAX: (406) 563-8255

ANACONDA UNIT OFFICE
1300 Maguire Road
Anaconda, MT 59711

December 29, 2016

Ref: SML/Brad Anderson Farms SMZ AP

Dear Mr. Krueger

This letter is in reference to a request made by Dave Krueger of Sun Mountian Lumber to the Department of Natural Resource and Conservation for an Alternative Practice. This AP is located in Sections 4, T4N, R9W. After review of the Checklist Environmental Assessment prepared for this request, the Alternative Practice to allow equipment operations within the SMZ of the un-named tributary to Whitcraft Gulch is approved, subject to the following conditions:

1. Treatments would be limited to operation of a feller-buncher inside the 50 foot SMZ, but no closer than 20 feet to the ordinary high water mark (OHWM).

2. Skidding would be allowed inside the SMZ but no closer than 25 feet from the OHWM on two segments of the channel (see attached map). Skid distance inside the SMZ would be no more than 100 yards on either segment.

3. Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches, snow to a depth of eight inches, or periods when ground moisture is less than 20%.

4. If operations take place during periods of dry ground conditions, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching water.

5. Felled trees would be placed outside of the 50 foot SMZ boundary for skidding.

Approved Alternative Practices, including any additional conditions required by DNRC, shall have the same force and authority as the standards contained in77-5-303, MCA, and shall be enforceable by DNRC under 77-5-305, MCA, to the same extent as such standards.

It is your responsibility to ensure that your operators understand that an Alternative Practice has been issued for their operations in this area, and that these conditions must be fully meet to achieve compliance with the SMZ Law.

This approval is contingent upon your execution and return of the attached Compliance Affadavit to the DNRC Anaconda Unit Office.

Thank you for your cooperation in this matter. Please call me if you have any questions.

Sincerely,

Sean Steinebach
Service Forester

cc: HRA file, Landowner, Applicant,
Unit Office, Land Office,
Service Forestry Bureau

DEPARTMENT OF NATURAL
RESOURCES AND CONSERVATION

STEVE BULLOCK, GOVERNOR

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1300 Maguire Road
Anaconda, MT 59711

December 22, 2016

SML – Brad Anderson Farms SMZ AP

ALTERNATIVE PRACTICE RESPONSIBILTY AFFIDAVIT

In consideration of DNRC's approval of the alternative practice(s) in Section 4, T4N, R9W, I hereby certify that I, or by written contract the legal entity I represent, am responsible for the compliance with the Montana Streamside Management Zone Law. I understand that failure to implement any of the mitigation measures required by the DNRC will be considered a violation of the SMZ Law (77-5-301 et. Seq.), and may result in penalties assessed against me or the legal entity I represent.

David A Kuntz 12-28-2016

Signature of Responsible Party **Date**